Design and Technology Subject Content

Oak	Sycamore	Elm
EYFS **Exploring using media and materials:** Children sing songs, make music and dance, and experiment with ways of changing them. They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. **Being Imaginative:** Children use what they have learnt about media and materials in original ways, thinking about uses and purposes. They represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role-play and stories. ***SEE BELOW FOR 2 YEAR ROLLING PROGRAME OF STUDY***	Year 2 Design • design purposeful, functional, appealing products for themselves and other users based on design criteria • generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology Make • select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Evaluate • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria Technical knowledge • build structures, exploring how they can be made stronger, stiffer and more stable	Year 4 / 5 / 6 Design • use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make • select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate • investigate and analyse a range of existing products • evaluate their ideas and products against their own design criteria and consider

	• explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. Cooking and Nutrition • use the basic principles of a healthy and varied diet to prepare dishes understand where food comes from.	the views of others to improve their work • understand how key events and individuals in design and technology have helped shape the world Technical knowledge • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • apply their understanding of computing to program, monitor and control their products. Cooking and Nutrition • understand and apply the principles of a healthy and varied diet • Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

Year 1 Design • design purposeful, functional, appealing products for themselves and other users based on design criteria - *Design and make Christmas felt stockings* - *Design and make clay Diya lamps for Diwali* - *Design a t-shirt from themselves/somebody else to protect them from the sun based on criteria* • generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology - *Planning, making mock-up designs for moving Victorian toys* - *Planning, sketching and making clay Diyas.* - *Design a miniature garden by talking, drawing/making a mock up.* - *Plan/gather ideas of what they/someone else likes (colours/fabrics etc.) Make a template/mock-up of what it might look like.* Make • select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] - *Shaping clay (Diya's)* - *Shaping and joining clay shapes to build a Motte and Bailey castle* - *Cutting out pictures for the moving toy* - *Joining and finishing the cam components* - *Make dolly Peg Christmas angels (think about how to join and finish the product)* - *Make the T-shirt design using tie dye*	Year 3 Design • use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups • generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design Make • select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate • investigate and analyse a range of existing products • evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • understand how key events and individuals in design and technology have	

• select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics - *Selecting materials/decorations for characters on felt stockings (coloured felt/sequins/gems etc).* - *Choose from a variety of decoration pieces (ribbons, string, sequins, card, tissue paper etc.) to finish dolly peg angels.* - *Bring in from home and choose from class natural resources to make miniature gardens.* - *Choose the material, colours etc. from their research to make their tie dye t-shirts* Evaluate • explore and evaluate a range of existing products - *Evaluation of celebratory food consumed during Diwali* - *Exploring which fabrics would be best to protect your skin but also keep you cool in the summer* - *Evaluate which material would be best to build The Three Little Pigs house/The Three Bears chair/bed* • evaluate their ideas and products against design criteria Technical knowledge - *Evaluate their Victorian cam toys using technical questions (What would they keep the same, what would they change?)* - *Evaluate their miniature gardens (What would they keep the same, what would they change?)* - *Evaluate their t-shirts using customer questionnaires/design criteria*	helped shape the world Technical knowledge • apply their understanding of how to strengthen, stiffen and reinforce more complex structures • understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • apply their understanding of computing to program, monitor and control their products. Cooking and Nutrition • understand and apply the principles of a healthy and varied diet • Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques • Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	

• build structures, exploring how they can be made stronger, stiffer and more stable (The 3 bears/The 3 pigs) • Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. - *Sliders, wheels and axles used in moving Victorian toys.* - *Making a moving car?* - *Making a card with levers and sliders?* Cooking and Nutrition • use the basic principles of a healthy and varied diet to prepare dishes - *Planning and making sandwiches (Lighthouse Keepers Lunch)* - *Planning and making healthy, fruity ice lollies (holiday topic)* - *Making gingerbread men (Christmas)* - *Making fruit and vegetable bugs* - *Making coconut barfi (Diwali sweet)* • Understand where food comes from - Food and farming topic (UK/Africa) - Healthy Me topic - Growing class crops (beans) Growing fruit (strawberries) growing more veg (carrots/tomatoes)		